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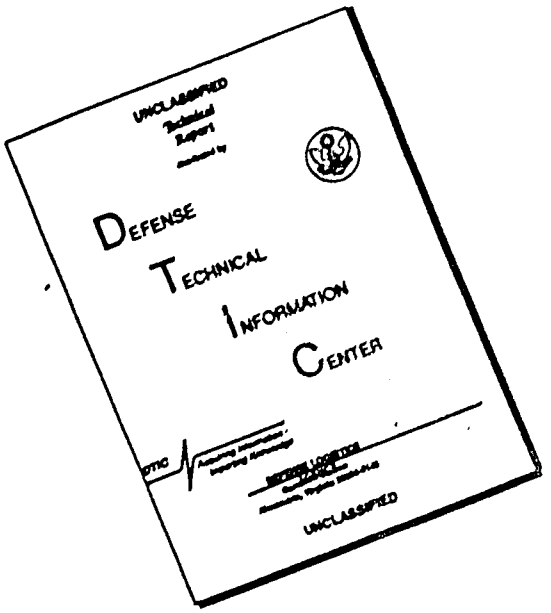

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IN REPLY REFER TO
AGAM-P (M) (16 Jun 67) FOR OT

23 June 1967

SUBJECT: Operational Report - Lessons Learned, Headquarters, 70th Engineer Battalion (Combat)

TO: SEE DISTRIBUTION

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2. Information contained in this report is provided to the Commandants of the Service Schools to insure appropriate benefits in the future from lessons learned during current operations, and may be adapted for use in developing training material.

BY ORDER OF THE SECRETARY OF THE ARMY:

Kenneth G. Wickham

KENNETH G. WICKHAM
Major General, USA
The Adjutant General

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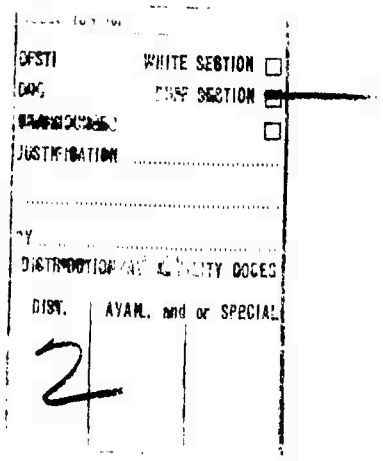

DEPARTMENT OF THE ARMY
HEADQUARTERS, 70TH ENGINEER BATTALION (COMBAT)(ARMY)
APO 96294

EGC-70E-CO 31 January 1967

SUBJECT: Operational Report - Lessons Learned (RCS CSFOR-65), for Quarterly Period Ending 31 Jan 67.

THRU: Commanding Officer
937th Engineer Group (Cbt)(A)
APO 96318

Commanding General
18th Engineer Brigade
APO 96377

Commanding General
US Army Engineer Command Vietnam (PROV)
ATTN: AVCC-BC
APO 96491

Commanding General
United States Army, Vietnam
ATTN: AVC-DH
APO 96307

Commander in Chief
United States Army, Pacific
ATTN: GPOP-MH
APO 96558

TO: Assistant Chief of Staff for Force Development
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Washington, DC 20310

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EGC-70E-CO 31 January 1967
SUBJECT: Operational Report - Lessons Learned (RCS CSFOR-65), for Quarterly Period Ending 31 Jan 67.

SECTION I. SIGNIFICANT ORGANIZATIONAL ACTIVITIES

1. a. During this reporting period this organization continued to engage in extensive construction projects normally associated with construction battalions. Some of the major projects completed during this period have been:

(1) An 18KM Security Lighting System which encompasses the 1st Air Cavalry Division's Base Camp. This involved the placement of 374 poles and laying approximately 80 miles of wire. A portion of this lighting system crosses the southern approach to the An Khe Airfield. Because of the glare of these lights pilots had experienced difficulty in landing during night operations. Half shades and conical covers were experimented with but didn't produce the desired results. A remote switch was installed in the control tower which allowed the lights in question to be turned off allowing the pilots to land safely. The 45-60 seconds that the lights are off does not seriously compromise the security of the base camp.

(2) A 140 bed Mobile Army Surgical Hospital which includes 19 Quonsets, 9 tropical wood frame buildings, covered walkways, hot and cold water system, helipad, road network, and necessary electrical and plumbing.

(3) Extension to the Commanding General's Office area which involved the erection of an additional quonset with connecting covered walkway and steps.

(4) A 10 MBBL Collapsible bladder which acts as a temporary terminus for the Qui Nhon - An Khe pipeline and a fueling point for tankers bound for Pleiku.

(5) A Division Tactical Operations Center which is an underground bunker that houses the nerve center for all 1st Air Cavalry Division's operations. The DTOC is designed to withstand a direct hit from a 105 mm projectile and is waterproof, has its own drainage, electrical and ventilation system.

(6) A 60 Ton Ice Plant capable of producing 60 tons of ice from four 15 ton ice units. It has its own water supply and purification system.

(7) The construction of a 27 meter Eiffel bridge which opened up Kannack Road thereby linking the town of An Khe with nearby hamlets.

(8) 40,000 cubic feet of refrigeration storage with covered sheds.

(9) Completion of 9,216 SF of maintenance buildings and rehabilitation of 14,400 SF of ammunition storage area in the Log Complex.

(10) Replacing the surface on the runway at the An Khe Airfield, The old runway consisted of PSP which required continuous maintenance and was a safety hazard for C-130 aircraft. The PSP was removed and replaced with a double surface treatment of asphalt. The taxiways and parking apron were also surfaced with a DBST asphalt surface.

(11) Combatting a ten year design flood from 25 Nov 66 to 27 Nov 66. Monitoring of river rises, clearing culverts and bridge piers, establishing lanes through flooded portions of the road network, construction of dikes, extraction of flooded and bogged down vehicles, road maintenance, as well as removing the decking and anchoring a 260' DD Bailey Bridge.

b. Some of the current projects include:

(1) A logistical Complex to include warehouse construction, maintenance shops, rehabilitation and construction of ammunition bunkers and establishment of a road network.

(2) A Division Supply Point which includes 1000 SF Admin Bldgs, 10,000 SF of Warehouses, 3000 SF of Shops, 12000 SF of Open Storage Sheds, 12,000 Sq Yds of Open Storage.

(3) Construction of a 6900 SF Administration Building to house the G2 and G3 offices of the 1st Air Cavalry Division.

(4) Construction of a 4400 SF Bakery which will be a permanent facility that will satisfy Division's needs for bread and pastry.

(5) A 65 MBBL Tank Farm which will be the permanent terminus of the Qui Nhon - An Khe pipeline and POL Supply Point for Pleiku. It includes the erection of five 10 MBBL steel bolted tanks and five 3 MBBL steel bolted tanks with manifolding system and fueling stands.

(6) A Dial Central which is an air conditioned building that will house a direct dialing system for An Khe.

(7) An IMCS Stratcom facility to include antenna bases, foundations for power buildings, site bonding and grounding, water supply and sewerage. It also includes the construction of an antenna base on Hon Cong Mt.

(8) Repair, maintenance and rehabilitation of the AM2-T17 Airstrip at the Golf Course. Because of the lack of anchorage systems, the constant shifting of the AM-2 tore the T-17 membrane and allowed water to erode the sub-base. The AM-2 and the T-17 were removed and salvaged. The sub-base was removed and replaced with 3" and 1½" crushed rock, then compacted. It was then shot with peneprime and the AM-2 was replaced without the T-17 membrane. The areas effected were the southern 1000 ft and 800 ft of the northern portion of the runway.

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(9) Continued development of the world's largest heliport to include pad construction, road maintenance, penepriming and hanger erection; construction of a standard military one lane class Y road along the barrier of Camp Radcliff.

(10) An axial road program which provides access roads into major unit areas with necessary culverts. This project requires 5 miles of such roads to be constructed.

(11) Maintenance of 31 miles of National Route 19 from BR 627471 to BR 222521.

(12) Numerous lesser projects including bridge repair, hauling fill as required, construction of Female Nurses Billets, site preparations, road maintenance and dust control for 11.5 miles of road network and dust control for helicopter and aircraft pads, slingout areas, refueling areas and maintenance areas on Camp Radcliff.

c. This organization is also responsible for the improvement of the 1st Air Cavalry Division's base camp to include troop living conditions under the Self-Help program. Materials supply, equipment assistance, technical guidance, inspection and supervision are provided for a 21,900 Man Cantonment Self-Help program. In conjunction with the self-help program the battalion operates a prefabrication yard which employs local Vietnamese Nationals. During this reporting period the last of 94 Mess Halls were completed and 256, 20' x 80' billets were issued and 220 completed out of 1000 required in the billet phase. Phases of construction and unit priorities are established by a Division Base Development Board which meets quarterly under the direction of the assistant division commander.

d. On 14 December 1966 this battalion assumed responsibility for all rock production at An Khe. In addition to two 75 TPH primary units and two (2) secondary units operated at the Hon Cong Quarry Crusher by a platoon of the 630th Engineer Company (LE) two more 75 TPH primary and two secondary crusher units were taken over from the 84th Engr Bn (Const) along with a quarry located on Route 19. With the aid of Mr. McCardle, a civilian quarry and crusher expert from Leo A. Daly Co thru US Army Engr Command (PROV), plans for development of both quarries and crusher sites were drawn up.

(1) The Hon Cong Quarry consists of a face of decomposed and weathered granite. The rock has decomposed sufficiently to be mined by using dozers to push the rock into the crushing plant. The rock is weathered to the point it is soft and although suitable for roads, it is not recommended for use in concrete. The future development of this quarry includes removal of greater areas of overburden, establishment of more benches, and generally increasing the amount of available rock.

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(2) The Hon Cong Crusher site will operate with one 75 TPH primary crusher and one secondary crusher to produce rock for road maintenance and self-help projects. A more efficient road network, drainage plan, and permenant operational layout, to include concrete pads, is being put into effect.

(3) The Route 19 Quarry is a hard rock quarry (granite) which requires drilling and blasting to break the rock for loading and reducing it in size to enable it to be put through the crushers. The Quarry is located outside of the secured area and can only be worked in daylight hours. The rock is loaded on trucks with a two yard shovel and hauled about 2 kilometers to the crushing and screening plant within the secured perimeter of the camp. This quarry has a greater potential than the Hon Cong Quarry. There is a wide area of good hard granite covered with soil overburden. Due to the urgent need for rock this quarry was operated to produce immediate requirements rather than to develop long term needs. The development of this Quarry includes the stripping of greater areas of overburden, the establishment of more efficient benches, rehabilitation of existing road network and a new drainage layout. Former methods of blasting produces sizes of rock that could not be fed to the crushers and required secondary blasting. A revised drill pattern and recalculated sizes of charges have been producing satisfactory sizes of rock that require no secondary blasting.

(4) The An Khe Crusher site will operate with three 75 TPH primary units and three secondary units. The new development plan calls for a common headwall 180' long, concrete pads for all crusher units, rehabilitation of the road network, more efficient stockpiling, and a comprehensive drainage layout. The new layout is designed for flexibility. The secondary units have been located in such a manner as to allow rapid relocation to produce desired sizes.

e. The operation of two Quarry and Crusher sites have their inherent problems. The paramount problem that faces this battalion is the desperate need for qualified maintenance personnel. Since quarry and crusher operations are an additional mission for this battalion there is a definite requirement for both men and equipment that is in addition to the battalion TO&E. The next critical area is the required spare parts for maintenance. A stock of spare parts, either on hand at the site, or in a back up depot available within a maximum of a few hours is mandatory to keep producing rock. All of these requirements have been forwarded through channels.

2. This unit was engaged in construction operations for 80 days of the reporting period and trained for 12 days.

3. Attachments: To accomplish this mission the following units were assigned or attached during the reporting period:

a. 511th Engr Co (CB).

b. 1 Plt 630th Engr Co (LE).

c. Company B, 84th Engr Bn (Const)(Attached 14 Dec 66).

d. 444th Engr Det (HO)(Attached 1 Jan 67).

e. 1 Plt 585th Engr Co (DT)(Attached 15 Dec 66).

4. Status of personnel in the 70th Engr Bn (Cbt)(A) and the attached units is as follows:

UNITS	AUTH	ASGD (1 Nov 66)	ASGD (31 Jan 67)	31 Jan 67	PRESENT FOR DY - STRENGTH
70th	619	622	606	98%	540 - 87%
511th	127	122	122	96%	118 - 93%
630th	37	52	43	116%	43 - 116%
B/84th	184	___ *	167	91%	153 - 83%
444th	27	___ *	27	100%	25 - 93%
585th	39	___ *	38	98%	35 - 90%

* Not attached at this time.

5. Construction materials are being received on a thru put basis. As of yet this unit has no MHE. This necessitates the use, on the average, of two (2) 20 T Cranes on a 24 hr basis. This critically reduces the ability of the unit to support construction operation requiring the use of cranes, e.g. the erection of POL steel bolted tanks.

6. Civic Action. In addition to the work described, the battalion was active in a number of civic action projects designed to improve the living and health conditions of the local population and thereby foster a greater degree of mutual respect and understanding between the local Vietnamese Nationals, the established government of Vietnam, and the US Forces. These projects are described below:

a. Conduct sick call twice weekly in the refugee resettlement area. Approximately 100 patients each week were treated. At the same time soap and vitamins were distributed. The products were received through medical channels and donations from sources in CONUS. During sick calls, guidance was given on how the people could improve their health and sanitation.

b. Distribution of approximately 400 pounds of used clothing and 500 pounds of foodstuffs.

c. Conducted English classes at the An Tan Protestant Church. The class of about 25 regular attending students meet twice a week.

d. Employment of local nationals to aid in the accomplishment of the battalion's many projects. In this manner, the battalion has been able to provide a sizeable number of people with a source of income, create a working relationship between the local nationals and the members of the battalion, and, in the process, acquire valuable assistance with our work.

e. All civic action programs carried out by the battalion have been in an effort to raise the standard of living of the local Vietnamese by offering them aid that they could not supply for themselves and opportunities for employment that tend to increase their ability toward self-help. All programs have been met with warm response, and the impact on the refugee areas and the local community is considered extremely favorable.

SECTION II. PART I OBSERVATIONS (LESSONS LEARNED)

Operations.

Eiffel Bridge Erection

ITEM: Eiffel Bridge Erection.

DISCUSSION: The Eiffel bridge is similar to the Bailey bridge except it lacks a launching system and its diagonal members cannot withstand reverse stress. The Eiffel bridge was erected on Bailey bridge construction rollers with a 20 T Crane. The gap was 27 meters and necessitated the construction of an intermediate pier. This pier was constructed using Bailey bridge panels. The bridge was launched with the aid of an HD-16 until it rested on the intermediate pier. Then the crane was moved to the far shore. The crane was then used to support the nose as the bridge was launched to the far shore side. The intermediate pier and the crane on the far shore was needed to stabilize the bridge and prevent excessive reverse stresses. After the bridge was positioned on its cribbing the intermediate pier was disassembled.

OBSERVATION: Construction rollers and an HD-16 are needed for launching of Eiffel bridges. With spans greater than 10-15 meters an intermediate pier and crane is needed to prevent excessive reverse stresses in the members.

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Piers Constructed from Bailey Bridge Parts

ITEM: Maintenance of Piers Constructed with Bailey Bridge Parts

DISCUSSION: Bridge piers constructed of Bailey bridge parts cannot withstand excessive side forces, such as large trees and other floatsom during high water or flood conditions.

OBSERVATION: An upstream bow welded to the pier will deflect floatsom without producing undue stress on the pier. Pieces of 4' x 8' armor plate can be used for this purpose, welding the plates in a 60° V. The plate should then be welded to the pier using a one foot overhang on each end.

Construction Tools for Steel Work

ITEM: Steel Building Construction Tools

DISCUSSION: Placing of metal siding and roofing on steel buildings require numerous drill bits and sockets. As holes must be made through two sheets of metal and a purlin, drill bits break easily and sockets become rounded and allow slippage. Bits were broken primarily because of bit length and number of objects to be drilled. Prior to placement, drilling of 5-7 sheets clamped together saves valuable time and thus can easily be used as a template; but when placed in position, bracing to the purlin must be made to prevent separation and bit breakage. Broken bits were resharpened and were extremely effective because of the shorter length. Sockets of thirteen points are not as durable as those of six points.

OBSERVATION: As drill bits and sockets are not normally readily available, secure well in advance two to three dozen of each per 20,000 square feet of metal roofing and siding. Resharpen broken drill bits and obtain, if possible, six-point sockets.

Reinforcement Substitute

ITEM: Barbed-wire Reinforcement

DISCUSSION: During times of steel-reinforcing bar shortage, barbed-wire may be used to provide additional concrete strength. Three strands of wire can easily be laced or braided together. The spacing should be approximately one-half of that required for steel rod. The barbs serve to prevent slippage through the concrete.

OBSERVATION: Laced barbed-wire may be used as a substitute for steel reinforcing rod when time and materials permit.

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Sliding Door Tracks

ITEM: Sliding Door Tracks

DISCUSSION: Tracks and ramps placed at the same level as the floor slab have been difficult to keep clean and fully serviceable. Lowering the ramp one inch below the floor level serves to eliminate this problem. For better track servicability, the track should be placed so that the top is at least one-quarter inch below the concrete surface. This will lessen damage by vehicles to the track.

OBSERVATION: Lowering of the track and ramp below the floor level lessens track damage and allows better functioning of the door and ramp system.

Patching Potholes

ITEM: Patching Asphalt Runway Potholes during the Monsoon Season

DISCUSSION: A method of patching potholes in asphalt runways during the monsoon season is to patch these potholes with a concrete mixture. This method is satisfactory, provided that there is a period of little or no traffic for six to eight hours. However, if the runway can not be closed to traffic for periods over three hours a satisfactory method is to add calcium chloride to the water used in mixing the concrete.

OBSERVATION: Asphalt cold mix can not be utilized to patch potholes during the monsoon season because the moisture prevents proper binding of the aggregate. It was found that a concrete mixture was satisfactory provided a period of at least six hours was available for the mixture to cure. Closing an airfield to traffic for extended periods of time is often not feasible. An alternate solution which cuts the down time in half is to add calcium chloride to the water used to mix the concrete. The resulting chemical reaction gives off sufficient heat to cure the concrete to a point that normal traffic can resume after three hours with no noticeable damage to the patch.

Nylon String

ITEM: Nylon String

DISCUSSION: Nylon string is much better than cotton string during placement of forms for footers and slabs. Cotton string does not have the strength, has greater sag, and is more subject to weather deterioration than nylon string. Greater spans may be used through the use of nylon string with increased accuracy.

OBSERVATION: When available, use nylon string as a replacement to cotton string for better accuracy, less time, and longer life.

Rollers for Sliding Doors

ITEM: Rollers for Sliding Doors

DISCUSSION: Numerous buildings have required sliding doors yet necessary hardware was not available. As a substitute, many items may be obtained from a local salvage yard. An example are pulleys from vehicle engines and various rollers from salvaged helicopters. Whether the doors are suspended or not, channel or angle-iron may be used as a track with flat steel rod bolted to secure the rolling mechanism to the door.

OBSERVATION: Many different and varied items are available as salvage for use as rollers for sliding doors.

Protective Shelter Bracing

ITEM: Refrigerator Protective Shelter Bracing

DISCUSSION: Protective shelters built for the 1600 cubic foot refrigerator were found to be unstable and in need of additional bracing. As the corner posts were flush with the ends of the unit proper and projections of the unit prohibited horizontal center bracing, kicker blocks 18 inches long were placed against the unit and secured to each post. This prevented the transverse sway of the shelter. The shelter thus utilized the unit for support.

OBSERVATION: Protective shelters may be constructed, so that the basic item is utilized in the construction support requiring less time and materials, yet accomplishing desired objectives.

Cold Mix Patch

ITEM: Patching asphalt with cold mix.

DISCUSSION: In repairing the asphalt on the An Khe Airfield with cold mix, a few of the holes were found to have very soft, wet sub-base material. The cold mix would not hold in these areas for obvious reasons.

OBSERVATION: To make the sub-base on these areas hold, a very dry sand, cement mixture was driven into the sub-base with an airhammer. This was left to set up and then the top four inches of cold mix was put back in. These patches are holding well, because the sub-base is solid and no water can get into the patch from the lower side.

EGC-70E-CO 31 January 1967

SUBJECT: Operational Report - Lessons Learned (RCS CSFOR-65), for Quarterly Period Ending 31 Jan 67.

Peneprimimg Operations

ITEM: Use of Peneprime

DISCUSSION: Because of a thick layer of dust that accumulates on the road surface the peneprime does not penetrate to the subgrade and frequent applications are necessary. By using water or a 25-75 mixture of diesal and peneprime, the dust layer was settled and penetration to the subgrade was 100%. Subsequent applications of peneprime built up a durable seal coat that withstood heavy traffic and rains.

OBSERVATION: Road dust must be settled with either water or diesel and peneprime. Subsequent applications of peneprime will build up a good thick seal coat and last under heavy traffic and rains.

SECTION II. PART II RECOMMENDATIONS.

1. Operations.

a. The erection of the Eiffel bridge involved excessive bolting, heavy equipment, and temporary construction. The Bailey bridge is much easier and faster to erect. It should be used if time is a critical factor.

b. There are no short-cuts to quality construction if all the proper materials are available. If these materials are in short supply and slippage of critical projects results, an application of basic engineering principles will develop a sound substitute. It is incumbent on company commanders to use their imagination and apply basic engineering principles to derive suitable substitutes to prevent slippage of critical projects.

c. When Combat Engineer Battalions are augmented with major items of equipment, e.g. Rock Crushers, there is a definite requirement for men and ancillary equipment, such as drills, 40 T Shovels, front loaders, dozers, lubrication equipment and tools. There is also a critical requirement for maintenance personnel and spare parts. Rock production cannot preceed unless these requirements are met.

2. Logistics. S-4 yards that stock and supply large quantities of Class IV engineer materials should be augmented with MHE. This would free lifting devices for construction support.

John R Redman

JOHN R. REDMAN
LTC, CE
Commanding

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EGC-70E-CO 31 January 1967

SUBJECT: Operational Report - Lessons Learned (RCS CSFOR-65), for Quarterly Period Ending 31 Jan 67.

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EGC-CO (31 Jan 67) 1st Ind
SUBJECT: Operational Report on Lessons Learned for Period 1 November 1966 to 31 January 1967 (RCS-CSFOR-65)

DEPARTMENT OF THE ARMY, HEADQUARTERS, 937TH ENGINEER GROUP (COMBAT), APO 96318, 21 February 1967

TO: Commanding General, 18th Engineer Brigade, ATTN: AVBC-C, APO 96377

1. The subject report, submitted by the 70th Engineer Battalion (Combat), has been reviewed and is considered a well compiled report of organizational activities.

2. I concur in the recommendations of the Battalion Commander.

3. The following comments are added:

a. Reference Section II, Part I, Item: Barbed-wire Reinforcement. This headquarters agrees with the use of barbed wire in certain instances as an expedient for concrete reinforcement. Use of the wire does add a degree of strength to the concrete, and will help prevent temperature and shrinkage cracking. However, wire is never used as a substitute for reinforcing bar when design is based on structural strength of steel rod reinforced concrete.

b. Reference Section II, Part II, Paragraph 1c: An in-depth study of the quarry/crusher operations in the An Khe area has been conducted and recommendations concerning need for additional equipment, operators, and maintenance personnel have been submitted to the Commanding General, 18th Engineer Brigade.

c. Reference Section II, Part II, Paragraph 1d: The 70th Engineer Battalion (C) is authorized a fork lift by TA 50-916. The fork lift has been requisitioned (Requisition Control Number - 80BY-6311-0003), but, to date, has not been received. Latest follow-up status card was submitted on 9 February 1967.

E. P. Braucher

E. P. BRAUCHER
Colonel, CE
Commanding

B

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AVBC-C (31 Jan '67) 2nd Ind Cpt Mills/hwg/DBT-163
SUBJECT: Operational Report - Lessons Learned for the Period Ending 31 January 1967 (RCS CSFOR-65)

Headquarters, 18th Engineer Brigade, APO US Forces 96377 8 APR 1967

TO: Commanding General, U.S. Army Engineer Command, Vietnam, (Prov), ATTN: AVCC-BC, APO US Forces 96491

1. This headquarters has reviewed the Operational Report - Lessons Learned for the Period Ending 31 January 1967, for the 70th Engineer Battalion (Combat), and considers it an excellent account of unit activities and accomplishments.

2. Concur with the observations and recommendations of the submitting commander, as indorsed by the group commander, with the following additional comments:

a. Section II, Part II, para 1c and 1st Ind, para 3b - analysis of the quarry-crusher operations within the 937th Engineer Group (Cbt) area of responsibility resulted in the movement of the quarry and maintenance sections of the 102nd Engineer Company (CS) from Cam Ranh Bay to Pleiku to operate a 225 TPH Crushing and Screening Plant at Pleiku and to provide maintenance assistance to units in the An Khe area.

b. Section II, Part I - Penepriming Operations - This procedure for application of peneprime to road surfaces is technically correct. The use of cutback asphalt for trafficked surfaces is prefered to peneprime because of its better binding and wearing qualities and lower cost. Peneprime should be used for non-trafficked areas where immediate use is contemplated, such as a helicopter loading area in field operations.

Harold J. St. Clair

HAROLD J. ST. CLAIR
Colonel, CE
Acting Commander

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AVCC-MHB (31 Jan 67) 3d Ind MAJ Fowler/ecb/BH 478
SUBJECT: Operational Report-Lessons Learned (RCS CSFOR-65) for Quarterly Period Ending 31 January 1967

HEADQUARTERS, UNITED STATES ARMY ENGINEER COMMAND
VIETNAM (PROV), APO 96491 17 APR 1967

TO: Commanding General, United States Army, Vietnam, ATTN: AVHGC-DH, APO 96307

1. The subject report, submitted by the 70th Engineer Battalion (Cbt), has been reviewed by this headquarters and is considered adequate.

2. The recommendations and comments of the submitting and indorsing commanders have been reviewed and this headquarters concurs with report as indorsed.

FOR THE COMMANDER:

RICHARD J. DUCOTE
Colonel, CE
Chief of Staff

USARV, ATTN: AVHGC-DH

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AVHGC-DST (31 Jan 67) 4th Ind
SUBJECT: Operational Report- Lessons Learned for the Period Ending 31 January 1967 (RCS CSFOR-65)

HEADQUARTERS, UNITED STATES ARMY VIETNAM, APO San Francisco 96307 14 MAY 1967

TO: Commander in Chief, United States Army, Pacific, ATTN: GPOP-OT APO 96558

1. This headquarters has reviewed the Operational Report-Lessons Learned for the period ending 31 January 1967 from Headquarters, 70th Engineer Battalion (Combat)(Army) as indorsed.

2. Pertinent comments follow:

a. Reference paragraph 1a(1), page 2, concerning the base camp security lighting system: From a physical security point of view, switching off a portion of the perimeter lighting for 45-60 seconds each time an aircraft lands is not desirable. If three aircraft came in together, it is possible that a portion of the perimeter would be in darkness for as long as three minutes. That portion of the perimeter lighting which affects aircraft landings should be modified or replaced.

b. Reference paragraph 1e, page 5; paragraph 1c, page 11; paragraph 3b, 1st Indorsement; and paragraph 2a, 2d Indorsement, concerning additional personnel, equipment and spare parts (PLL) requirements for rock quarry and crusher operations: Concur with actions taken in paragraph 2a, 2d Indorsement to alleviate the maintenance problem. Further investigation has revealed that subsequent to submission of this report, the unit has prepared MTOE's to support the additional equipment and personnel on hand or required. They have also set up PLL's as additional equipment was added; however, they have not had enough time to establish demands for needed parts. Unit should review PLL to determine if established quantities are compatible with usage factors. Submission and approval of the unit's MTOE will provide personnel authorizations to help solve their maintenance problems.

c. Reference paragraph 5, page 6; paragraph 3, page 11; and paragraph 3c, 1st Indorsement, concerning materials handling equipment (MHE): Action taken in paragraph 3c, 1st Indorsement is considered adequate for the one piece of MHE authorized. If a requirement of additional MHE still exists, unit should comply with the procedures contained in USARV message (U) AVHGC-OT 19073, DTG 251132Z March 1967, subject: Changes in Equipment Authorizations.

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AVHGC-DST (31 Jan 67) 4th Ind
SUBJECT: Operational Report-Lessons Learned for the Period Ending 31 January 1967 (RCS CSFOR-65)

d. Reference item on Eiffel bridge erection, page 7; and paragraph 1a, page 11: Concur. The Bailey bridge is a very effective high load carrying bridge. It is much preferred over Eiffel bridges. Unit's comments are considered appropriate.

e. Reference item on barbed-wire reinforcement, page 8; paragraph 1b, page 11; and paragraph 3a, 1st Indorsement: Concur with commander's comments and with 1st Indorsement.

FOR THE COMMANDER:

E. L. KENNEDY
CPT, AGC
Asst Adjutant General

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GPOP-OT (31 Jan 67) 5th Ind
SUBJECT: Operational Report-Lessons Learned for the Period Ending 31 January 1967 (RCS CSFOR-65), HQ 70th Engr Bn (Cbt)(Army)

HQ, US ARMY, PACIFIC, APO San Francisco 96558 9 JUN 1967

TO: Assistant Chief of Staff for Force Development, Department of the Army, Washington, D. C. 20310

This headquarters concurs in the basic report as indorsed.

FOR THE COMMANDER IN CHIEF:

H. SNYDER
CPT, AGC
Asst AG